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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,230	04/16/2004	Lcs Gaston	83743-16	7777

7590 10/03/2007  
KNOBBE MARTENS OLSON & BEAR LLP  
2040 Main Street, 14th Floor  
Irvine, CA 92614

EXAMINER
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BHAT, NINA NMN

ART UNIT	PAPER NUMBER
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1764.

MAIL DATE	DELIVERY MODE
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10/03/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/825,230

**Applicant(s)**

GASTON ET AL.

**Examiner**

N. Bhat

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 25-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-13 and 25-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6-27-07</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The examiner acknowledges that claims 14-24, non-elected claims have been canceled and new claims 25-28 have been added. Claims 1-13 and 25-28 are pending in the application. Applicant's amendments and arguments of June 27, 2007 have been fully and carefully considered. Applicant's IDS of 6-27-2007 has been considered and attached herewith. Applicant's arguments are directed to the claims as now amended and the arguments as now amended are persuasive with respect to the anticipatory rejection over the Opoku reference. However, the claims remain rejected as being obvious over Opoku reference for reasons delineated below. Applicant's amendments to the claims obviate the 112, second paragraph rejections and accordingly the rejection has been withdrawn.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Opoku et al.

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Opoku et al. disclose the invention substantially as claimed. Opoku teaches an apparatus which treats bitumen froth which includes a source of steam corresponding to Opoku element 14 Figure 1, 30 in Figure 2, specifically element 34 injection means which includes a plurality of opening in nozzles 37); baffles disposed in a elongate static mixer body which correspond to Opoku section 30, baffles are elements 36 or 37. The conduit (30 or 14) is disposed an angle from the horizontal axis normally in the range of 5° to 45°. The baffles as claimed can be of various size and shape.[Note Column 3, lines 35-66 and Figures 1 and 2] The baffles as constructed and arranged is capable of imparting a later, radial, tangential or circumferential directional component to a material flowing through the static mixer. Opoku teaches that the quantity and volume of steam added to the conduit are regulated to provide the maximum efficiency in heating and dearating the froth.[Note Column 4, lines 3-6]

However, Opoku et al. does not teach the temperature transmitter and control valves, and/or control loop, the condensate source as claimed by applicant.

Opoku et al. teach an apparatus which heats a bitumen froth which includes a source of steam and inclined body which includes a bitumen inlet, outlet, steam injection means and baffle means disposed within the inclined body which functions as static mixers disposed within the inclined body to mix the bitumen froth as it travels through the inclined body.[Note Column 3, lines 35-66 and Figures 1 and 2]

Although the control loop and temperature transmitter features are not specifically taught, there is a clear teaching in Opoku et al. that the quantity of and volume of steam added to the conduit are regulated to provide the maximum efficiency in heat and dearating the froth and these are regulated and dependent in part on the temperature and quantity of air in the froth feed as well as the size and position of baffles in the conduit which effect froth flow which results in affecting mixing, deaeration and heating of the froth. Opoku et al. teach that the conduit can

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be fully or partially open at the top or fully enclosed with vapor exit means as illustrated in Figure 2.[Note Column 4, lines 4-13] With respect to the condensate source, this element as described by applicant is used in supplying steam to the incline heater body. To add this condensate stream as a steam supply source where steam injection means has been taught would have been obvious to one having ordinary skill in the art because the steam has to come from some place, even though the steam supply source is not specifically taught steam injection means has been fully and specifically taught and supported by Opuku to add a condensate line which as the supply for steam into the incline body heater would have been obvious. With respect to the control loop and temperature transmitter etc. these types of controls would have been implicitly provided as explained in Column 4, line 3 of Opuku as Opuku teaches controlling the steam, quantity and volume and controlling the temperature of the steam in the system as well as improving the overall heat efficiency, mixing of the system and realizing that these are all inter-related process optimizations and to include control valving and control temperature sensing and detecting devices to control the efficiency of heating, and mixing of the bitumen froth with steam has been taught and suggested in Opuku and to specifically add a control loop and temperature transmitters to effect control of the system as claimed would have been obvious to one having ordinary skill in the art at the time the invention was made. It is maintained that the apparatus of Opuku although applicant has admitted that this invention is an improvement over the Opuku reference, it is position of the examiner that providing an apparatus wherein substantially all of the bitumen froth and steam out of the second end of the static mixer body is an obvious modification of the Opuku reference and this modification would have been obvious to one familiar with design of the apparatus and is routine optimization of the apparatus design.

5. Applicant's arguments are commensurate with the claims as amended and the examiner acknowledges that with the amendment to the claims, that Opuku does not anticipate the claims

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and the rejection was accordingly withdrawn. For reasons delineated above, the examiner finds that the modifications or improvements made to the apparatus would have been obvious because directing all of the bitumen froth and steam to the mixer or optimizing the streams such that less steam is used than in prior art devices is well within the realm or capabilities of one skill in the art.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
N. Bhat  
Primary Examiner  
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